

C L A I M S

What is claimed is:

1. An elevator car positioning and control apparatus for use within an elevator hoist way having a rail mounted within the hoist way, comprising:

- (a) a first target mounted to the elevator car;
- (b) a second target mounted at a predetermined position within a pocket of said rail;
- (c) at least one sensor mounted to the elevator car; and
- (d) wherein said sensor senses said first target and generates a first control signal corresponding to at least one of the elevator car's direction, speed or position, and senses said second target and generates a second control signal corresponding to at least one of the elevator car's landing zone, door zone, floor level or floor number.

2. An elevator car positioning and control apparatus for use within an elevator hoist way having a rail mounted within the hoist way, comprising:

- (a) a target mounted within a pocket of said rail;
- (b) at least one sensor mounted on the elevator car; and
- (c) wherein said sensor senses said target and generates a control signal corresponding to at least one of the elevator car's landing zone, door zone, floor level or floor number.

3. An elevator car positioning and control apparatus for use within an elevator hoist way, comprising:

- (a) mounting a radio frequency identification reader to the elevator car;

(b) mounting at least one transponder at a predetermined position corresponding to a position of a floor within the elevator; and

(c) using said reader to sense said transponder and generate a signal based upon the position of said reader relative to said transponder.

4. A method for controlling the operation of an elevator car within an elevator hoist way, the hoist way having a rail mounted therein, the method comprising the steps of sensing at least one of an elevator car's direction, speed, position, landing zone, door zone, floor level and floor number within an elevator hoist way, the method comprising:

(a) positioning a first target on the elevator car;

(b) positioning a second target within a pocket of a first and second said rail;

(c) mounting at least one sensor on the elevator car; and

(d) generating a plurality of control signals corresponding to at least one of the elevator car's speed, direction, position, floor zone, door zone, floor level, and floor number, based on the position of the sensor relative to said first and second targets; and

(e) using a microprocessor to control the operation of said car based upon said control signals.